

REMARKS

The foregoing amendment cancels claim 1, puts claim 2 into independent form by adding all the limitations of claim 1, changes the dependency of claims 5-14 from claim 1 to claim 2, and adds claims 15-21 which are dependent on claim 2. Thus, claims 3-21, which are all claims in the application in addition to claim 2, are each dependent on claim 2.

New claims 15 and 16 are supported on page 13, lines 15 to 20 of the specification; new claims 17 and 18 are supported on page 16, lines 8 to 20; new claims 19 and 20 are supported on page 23, lines 6 to 10; and new claim 21 is supported in the paragraph bridging pages 19 and 20 of the specification.

Claims 1, 8 and 14 have been rejected under 35 U.S.C. 102(b) as anticipated by Soviet Union Patent SU 1793876 to Dzhililov et al. (abstract), which teaches an antibacterial treatment of cabbage seeds and plants including soaking the seeds in water at 50 degrees for 30 mins. It is noted however, that claim 1 has been canceled and claims 8 and 14 have been amended to be dependent on claim 2 and are thus limited to the treatment of seeds with a plurality of types of effective microorganisms, a feature not disclosed by Dzhililov et al. It is submitted, therefore, that this rejection based on anticipation under 35 U.S.C. 102(b) is not supported by the disclosure of the reference and should be withdrawn.

Claims 1-9 and 14 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Cultural Management in view of Dzhalilov et al. The teachings of Cultural Management relied on for this rejection are apparently substantially the same as some of those relied on for the final rejection of the claims based on Cultural Management alone in the Office Action of September 23, 2002. This rejection was successfully refuted in applicants' Appeal Brief of April 28, 2003, pages 6-12, as indicated by the withdrawal of this rejection and the reopening of prosecution.

As discussed in the Appeal Brief, the most significant arguments against the applicability of Cultural Management as a reference rendering the claimed subject matter obvious are that A) the reference does not teach any treatment of seeds infected with the pathogen of a seed borne disease by means of an effective microorganism which is antagonistic against such pathogen, as recited in the instant claims, since an antibiotic such as streptomycin disclosed by Cultural Management is not a microorganism; and B) Cultural Management does not suggest an order of treatment of infected seeds comprising a physical or chemical sterilization followed by treatment with an antagonistic microorganism as specified in applicants' claims. Note that these arguments against the applicability of Cultural Management as a reference relied on for the rejection, are even stronger in view of the foregoing amendment which cancels claim 1 and makes claims 2-9 and 14 dependent on claim

2 as amended, thus limiting such claims to the use of plurality of types of microorganisms antagonistic to the pathogen of the seed borne disease.

The foregoing arguments against the applicability of Cultural Management are not overcome by Dzhalilov et al. Thus, there is nothing in the teachings of these references which would lead a person having ordinary skill in the art to modify the disclosure of Cultural Management so as to interpret an antibiotic such as streptomycin disclosed by Cultural Management, as a microorganism. Furthermore, while Dzhalilov et al. discloses a treatment of seeds comprising a warm water treatment followed by treatment with a bacterial suspension, there is nothing in the disclosure of either reference to suggest that such order of treatment should be followed by Cultural Management, particularly since the latter reference discloses only alternative rather than sequential treatments. Finally, while Cultural Management does not teach any seed treatment with an effective microorganism, and Dzhalilov et al. is limited to the use of a single microorganism, all of applicants' rejected claims are restricted to the use of a plurality of types of effective microorganisms.

It is believed that the foregoing rejection under 35 U.S.C. 103(a) is particularly inapplicable to claim 5 which recites that at least one type of effective microorganism is separated from seeds which have been obtained by seed production, since this expedient yields an unobvious result in that it provides for

the enhancement of the survival rate of the microorganism after the seeds are stored under ordinary conditions for a long period.

In connection with the foregoing arguments against the rejection under 35 U.S.C. 103(a) based on Cultural Management in view of Dzalilov et al., it should be noted that the use of a plurality of effective microorganisms in the treatment of a seed borne disease is not merely arbitrary but has several unobvious advantages which further militate against the rejection under 35 U.S.C. 103(a). Some of these advantages are, for example, the enhancement of the fixing rate of the microorganism on the seeds and the resulting exertion of a controlling effect against a pathogen in a consistent manner even under a variety of cultivating conditions, as discussed in the specification on page 5, lines 7 to 13, page 10, lines 13 to 19 and page 16, lines 1 to 8 and as shown in the examples; and the possibility of controlling not only one type of seed borne disease but also a plurality of seed borne diseases at the same time.

Claims 10-13 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Cultural Management "as applied to claim 1 above" and further in view of U.S. Patent No. 4,798,723 to Dart et al. These claims have now been amended to be dependent on claim 2 rather than claim 1, and it is submitted that such amended claims are not rendered obvious by Cultural Management for reasons similar to those brought out previously in the discussion of the rejection of claims,

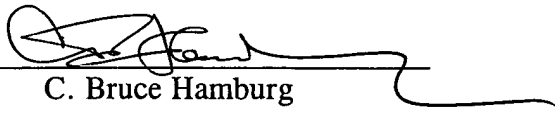
including claim 2, under 35 U.S.C. 103(a) as unpatentable over Cultural Management in view of Dzhililov et al. In particular, these reasons are that Cultural Management does not disclose the treatments of seeds by any effective microorganism, much less a plurality of such effective microorganisms, and also that Cultural Management does not show the order of treatments of the seeds specified in the claims which comprises a physical or chemical sterilization treatment followed by treatment with a plurality of effective microorganisms. Furthermore, this failure of Cultural Management to render obvious the foregoing critical features of applicants' claimed method is not overcome by Dart et al. which is relied on solely as showing various methods of applying a member of the *Pseudomonas* genus to a plant for the purpose of controlling a disease caused by fungi. However, regardless of the method of application of the controlling microorganism, the disclosure of Dart et al. does nothing to overcome the failure of Cultural Management to render obvious the method of claim 2, from which claims 10-13 are now dependent, particularly since Dart et al. do not disclose or suggest the use of a plurality of bacteria types in the control of disease caused by fungi.

This application is now thought to be in condition for allowance, and such action at an early date is earnestly solicited.

A one month extension of time is hereby requested for which please charge the government fee of \$110.00 to Deposit Account No. 10-1250. Please charge any fee deficiency or credit any overpayment to the same deposit account.

Respectfully submitted,

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